

AMENDMENTS TO THE SPECIFICATION

On page 1, before the paragraph beginning on line 1, please insert the following subtitle:

Field of the Invention

On page 1, before the paragraph beginning on line 6, please insert the following subtitle:

Background of the Invention

On page 4, before the paragraph beginning on line 1, please insert the following subtitle:

Brief Summary of the Invention

On page 4, replace the paragraph beginning on line 12 and ending on line 13 with the following:

The common control ~~downlink~~ downlink channel may be a broadcast channel or a forward access channel or a paging channel.

On page 5 before the paragraph beginning on line 5, please insert the following subtitle:

Brief Description of the Drawings

On page 5, before the paragraph beginning on line 14, please insert the following subtitle:

Detailed Description

On page 5, replace the paragraph beginning on line 1 and ending on line 13 with the following:

Examples of these radio channel effects are:

- i)           Offset in frequency ~~die~~ due to the well known mobile radio channel Doppler effect;
- ii)           Offset in timing ~~synchronisation~~ synchronization ~~die~~ due to multipath propagation;
- iii)          Energy loss in the transmitted signal due to propagation loss and fast-fading induced by multipath propagation.

With a knowledge of the extent of key radio channel phenomena the mobile can configure the various functions/processes/schemes that demodulate the received signal, such as the timing and tracking ~~synchronisation~~ synchronization and channel estimation, to ~~minimise~~ minimize the distortion caused by radio channel phenomena.

In addition, the mobile can provide ~~feback~~ feedback to the network, suggesting means to vary certain characteristics of its downlink reception and demodulation.

On page 9, replace the paragraph beginning on line 1 and ending on line 5 with the following:

Usually there will exist an almost continuous stream of pilot symbols from ~~of~~ the available downlink several common control channels such as the BCH, FACH and PCH. Since all the channels experience the same channel conditions, the mobile can obtain accurate and robust multi-path tracking information, as well as channel estimates.

On page 9, replace the paragraph beginning on line 14 and ending at line 17 with the following:

A typical mobile 12 is shown in Figure 9. It has a RF transceiver 50 connected to a baseband demodulator 52 which passes control data to a control signal processor of 54 and data signals to a decoder connected to a user data processor 58.

On pages 9 and 10, replace the paragraph beginning on line 18 of page 9 and ending on line 4 of page 10 with the following:

A further reduction in pilot energy can be achieved by incorporation of base station (BTS) intervention. The mobile 12 is arranged to provide feedback signals to the BTS about the quality of its HCPCH, ie the noise or power or ~~phase~~ phase rotation of the pilot symbols. The BTS can then reduce the power of the pilot symbols in the mobile's dedicated pilot channel in comparison with the power of the data symbols. A further advantage of such a power variation is that, depending on the cell scenario, it will reduce the overall power transmitted by a BTS on the downlink, which for a multi-user CDMA system (Fig.7) improves the downlink capacity.